UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 March 2004</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-28</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>March 29, 2004</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>See Continuation Sheet</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/9/05, 1/9/07, 7/27/07, and 11/1/07.

DETAILED ACTION

1.   This action is in response to communications filed March 29, 2004.

2.   Claims 1- 28 are pending in this application.

Specification

3.   The specification is objected to because it does not include a brief summary of

the invention. The following guidelines illustrate the preferred layout for the specification

of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should
include the following sections in order. Each of the lettered items should appear in
upper case, without underlining or bold type, as a section heading. If no text follows the
section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
     DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A
     COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
     (1) Field of the Invention.
     (2) Description of Related Art including information disclosed under 37
     CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A
     "Sequence Listing" is required on paper if the application discloses a
     nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if

the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

(g)   Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

4.   The specification is objected to because of the following informalities: Paragraph [0041], line1 recites, "At least certain of the operations..." It is believed that the intended phrase was meant to be something along the lines of, "At least certain aspects of the operations..." Appropriate correction is required.

Drawings

5.   The drawings are objected to because reference character "220m" (page 4, line 23) does not appear in figure 2, rather "220d" is the last processor in parallel. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be

canceled, the appropriate figure must be removed from the replacement sheet, and

where necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. Each drawing sheet submitted after the filing date of an application

must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

7.   Claims 2, 11, 19, and 23 are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention. It is unclear which packets are directed

to which queue, as well as which processors from "among all processors" are

distinguished from "different processors".

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claims 1, 7, 9, 15, 17, 21 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaniyar et al (US Publication No. 2003/0187914, hereinafter Kaniyar).

10.   With respect to claim 1, Kaniyar discloses a method, comprising: determining a number of conflicting entries (paragraph [0041], lines 8-18; *whereby the number of conflicting entries is maintained by a "counter" after determining whether "processor #N exists"*) in a first redirection table having a first set of entries (paragraph [0031], lines 8-12; Figure 3a; *whereby the "data packet descriptor….stored in a memory array 345" anticipated the first redirection table*), wherein the first set of entries is capable of being mapped (paragraph [0033], lines 3-6) to a second set of entries of a second redirection table (paragraph [0034], lines 6-16; Figure 3a; *whereby the "receive queue 355a" anticipated the second redirection table*); and mapping the first set of entries to the second set of entries, based on the number of conflicting entries in the first redirection table (paragraph [0043], lines 16-28).

11.   With respect to claim 7, Kaniyar discloses the method of claim 1, wherein determining and mapping are performed by a device driver (paragraph [0029], lines 17-

24, paragraph [0033], lines 3-6) in a computational platform having a plurality of
processors (paragraph [0026]).

12.   With respect to claim 9, Kaniyar discloses a system, comprising: at least one
processor (paragraph [0027], line 2); a network interface coupled to the at least one
processor (paragraph [0027], lines 9-12); and program logic including code (paragraph
[0029], lines 19-24) that is capable of causing the at least one processor to be operable
to: (i) determine a number of conflicting entries (paragraph [0041], lines 8-18) in a first
redirection table having a first set of entries (paragraph [0031], lines 8-12), wherein the
first set of entries is capable of being mapped (paragraph [0033], lines 3-6) to a second
set of entries of a second redirection table (paragraph [0034], lines 6-16) implemented
in the network interface (paragraph [0047, lines 10-18); and (ii) map the first set of
entries to the second set of entries, based on the number of conflicting entries in the
first redirection table (paragraph [0043], lines 16-28).

13.   With respect to claim 15, Kaniyar discloses the system of claim 9, further
comprising: a device driver (paragraph [0029], lines 17-24) operable to determine the
number of conflicting entries (paragraph [0041], lines 8-18) and map the first set of
entries (paragraph [0033], lines 3-6).

14.   With respect to claim 17, Kaniyar discloses a system, comprising: a
computational platform (paragraph [0026]); a storage controller implemented in the

computational platform; at least one processor (paragraph [0027], line 2) coupled to the computational platform; a network interface (paragraph [0027], lines 9-12) coupled to computational platform; and program logic including code (paragraph [0029], lines 19-24) that is capable of causing the at least one processor to be operable to: (i) determine a number of conflicting entries (paragraph [0041], lines 8-18) in a first redirection table having a first set of entries (paragraph [0031], lines 8-12), wherein the first set of entries is capable of being mapped (paragraph [0033], lines 3-6) to a second set of entries of a second redirection table (paragraph [0034], lines 6-16), wherein the second redirection table is implemented in the network interface (paragraph [0047, lines 10-18); and (ii) map the first set of entries to the second set of entries, based on the number of conflicting entries in the first redirection table (paragraph [0043], lines 16-28).

15.   With respect to claim 21, Kaniyar discloses an article of manufacture, comprising a storage medium having stored therein instructions that are operable by a machine (paragraph [0028], lines 1-10) to: determine a number of conflicting entries (paragraph [0041], lines 8-18) in a first redirection table having a first set of entries (paragraph [0031], lines 8-12), wherein the first set of entries is capable of being mapped (paragraph [0033], lines 3-6) to a second set of entries of a second redirection table (paragraph [0034], lines 6-16); and map the first set of entries to the second set of entries, based on the number of conflicting entries in the first redirection table (paragraph [0043], lines 16-28).

16.   With respect to claim 27, Kaniyar discloses the article of manufacture of claim 21,

wherein determination of the number of conflicting entries (paragraph [0041], lines 8-18)

and mapping the first set of entries (paragraph [0033], lines 3-6) are performed by a

device driver (paragraph [0029], lines 17-24) in a computational platform having a

plurality of processors (paragraph [0026]).

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

19.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

20.   **Claims 2-6, 8, 10-14, 16, 18-20, 22-26, and 28 are rejected under 35 U.S.C.**

103(a) as being unpatentable over Kaniyar, as applied to claims 1, 9, 17, and 21

(above), in view of Rogers et al (US Patent No. 6,970,990, hereinafter Rogers).

21.   With respect to claim 2, Kaniyar discloses the method of claim 1, wherein the first

redirection table is a software redirection table (paragraph [0031], lines 8-12; paragraph

[0007], lines 10-12), wherein the second redirection table is a hardware redirection table

(paragraph [0034], lines 6-16; paragraph [0007], lines 10-12), and wherein a conflict is

caused if at least two entries of the software redirection table (paragraph [0031], lines 8-

12) that are capable of being mapped (paragraph [0008], lines 10-14) to one entry of the

hardware redirection table (paragraph [0034], lines 6-16) indicate different receive

queues (paragraph [0043], lines 16-28), and indicating that packets associated with

conflicting entries are to be directed to one receive queue (paragraph [0043], lines 16-

28). Kaniyar does not disclose a threshold.

22.   However, Rogers discloses the method whether the first set of entries in the table

has more members than the second set of entries in the table (column 11, line 67;

column lines 1-2; *whereby the number of entries is based on the size of the table*),

wherein the number of conflicting entries are determined in response to determining that

the first set of entries in the table has more members than the second set of entries in

the table (column 11, line 67; column lines 1-2); determining that the number of

conflicting entries is less than a threshold (column 7, lines 53-57).

23.   It would have been obvious to one skilled in the art at the time the invention was

made to combine the teachings of Kaniyar with the teachings of Rogers. The motivation

to do so being, to limit the amount of hardware memory displaced by the table.

24.   With respect to claim 3, Kaniyar and Rogers disclose the method of claim 2.

Kaniyar further discloses distributing packets in the one receive queue among all

processors for processing (paragraph [0043], lines 21-23); and processing packets in

other receive queues in different processors (paragraph [0043], lines 23-28).

25.   With respect to claim 4, Kaniyar and Rogers disclose the method of claim 2.

Kaniyar further disclose indicating that all packets are to be directed to a single receive

queue (paragraph [0043], lines 16-23).

26.   And Rogers discloses determining that the number of conflicting entries is not

less than the threshold (column 7, lines 53-57).

27.   With respect to claim 5, Kaniyar and Rogers disclose the method of claim 4.

Kaniyar further discloses processing receive side scaling in software (paragraph [0007],

lines 10-12; paragraph [0008], lines 1-5), wherein processing receive side scaling

further comprises creating virtual queues (paragraph [0047], lines 16-18; paragraph

[0007], lines 10-12) and queuing deferred procedure calls (paragraph [0004], lines 11-

14) to corresponding processors via a device driver (paragraph [0029], lines 19-24).

28.   With respect to claim 6, Kaniyar and Rogers disclose the method of claim 2.

Rogers further discloses programming the hardware redirection table in accordance

with the software redirection table, in response to determining that the first set of entries

in the software redirection table does not have more members than the second set of

entries in the hardware redirection table (column 11, line 67; column lines 1-2).

29.   With respect to claim 8, Kaniyar discloses the method of claim 1, wherein the first

redirection table is associated with an operating system (paragraph [0029], lines 12-16)

that supports receive side scaling (paragraph [0022]), wherein the second redirection

table is implemented in a hardware device (paragraph [0034], lines 6-16) coupled to a

computational platform having a plurality of processors (paragraph [0026]). Kaniyar

does not disclose a fixed size table.

30.   And, Rogers discloses a table is of a fixed size (column 7, lines 15-17).

31.   It would have been obvious to one skilled in the art at the time the invention was

made to combine the teachings of Kaniyar with the teachings of Rogers. The motivation

to do so being, to limit the amount of hardware memory displaced by the table.

32.   With respect to claim 10, Kaniyar discloses the system of claim 9, wherein the

first redirection table is a software redirection table (paragraph [0031], lines 8-12;

paragraph [0007], lines 10-12), wherein the second redirection table is a hardware

redirection table (paragraph [0034], lines 6-16; paragraph [0007], lines 10-12), and

wherein a conflict is caused if at least two entries of the software redirection table

(paragraph [0031], lines 8-12) that are capable of being mapped (paragraph [0008],

lines 10-14) to one entry of the hardware redirection table (paragraph [0034], lines 6-16)

indicate different receive queues (paragraph [0043], lines 16-28), wherein the program

logic (paragraph [0029], lines 19-24) is further capable of causing the at least one

processor to be operable to indicate that packets associated with conflicting entries are

to be directed to one receive queue (paragraph [0043], lines 16-28). Kaniyar does not

disclose a threshold.

33.   However, Rogers discloses the method whether the first set of entries in the table

has more members than the second set of entries in the table (column 11, line 67;

column lines 1-2; *whereby the number of entries is based on the size of the table*),

wherein the number of conflicting entries are determined in response to determining that

the first set of entries in the table has more members than the second set of entries in

the table (column 11, line 67; column lines 1-2); determining that the number of

conflicting entries is less than a threshold (column 7, lines 53-57).

34.   It would have been obvious to one skilled in the art at the time the invention was

made to combine the teachings of Kaniyar with the teachings of Rogers. The motivation

to do so being, to limit the amount of hardware memory displaced by the table.

35.   With respect to claim 11, Kaniyar and Rogers disclose the system of claim 10.

Kaniyar further discloses distributing packets in the one receive queue among all

processors for processing (paragraph [0043], lines 21-23); and process packets in other

receive queues in different processors (paragraph [0043], lines 23-28).

36.   With respect to claim 12, Kaniyar and Rogers disclose the system of claim 10.

Kaniyar further discloses wherein the program logic is further capable of causing the at

least one processor to be operable to: indicate that all packets are to be directed to a

single receive queue (paragraph [0043], lines 16-23)

37.   And Rogers disclose the number of conflicting entries is not less than the

threshold (column 7, lines 53-57).

38.   With respect to claim 13, Kaniyar and Rogers disclose the system of claim 12.

Kaniyar further discloses a device driver (paragraph [0029], lines 19-24), wherein the

device driver is operable to process receive side scaling in software (paragraph [0007],

lines 10-12; paragraph [0008], lines 1-5) by creation of virtual queues (paragraph

[0047], lines 16-18; paragraph [0007], lines 10-12), and wherein the device driver is

capable of queuing deferred procedure calls (paragraph [0004], lines 11-14) associated

with the virtual queues to corresponding processors (paragraph [0009], lines 11-13).

39.   With respect to claim 14, Kaniyar and Rogers disclose the system of claim 10.

Rogers further discloses the program logic is further capable of causing the at least one

processor to be operable to: program the hardware redirection table in accordance with

the software redirection table, in response to the determination that the first set of

entries in the software redirection table does not have more members than the second

set of entries in the hardware redirection table (column 11, line 67; column lines 1-4).

40.   With respect to claim 16, Kaniyar disclose the system of claim 9, wherein the first

redirection table is associated with an operating system (paragraph [0029], lines 12-16)

that supports receive side scaling (paragraph [0022]), wherein the second redirection

table is implemented in the network interface (paragraph [0036], lines 1-6; Figure 3c).

Kaniyar does not disclose a fixed size table.

41.   However, Rogers discloses a table is of a fixed size (column 7, lines 15-17). It

would have been obvious to one skilled in the art at the time the invention was made to

combine the teachings of Kaniyar with the teachings of Rogers. The motivation to do so

being, to limit the amount of hardware memory displaced by the table.

42.   With respect to claim 18, Kaniyar discloses the system of claim 17, wherein the

first redirection table is a software redirection table (paragraph [0031], lines 8-12;

paragraph [0007], lines 10-12), wherein the second redirection table is a hardware

redirection table (paragraph [0034], lines 6-16; paragraph [0007], lines 10-12), and

wherein a conflict is caused if at least two entries of the software redirection table

(paragraph [0031], lines 8-12) that are capable of being mapped (paragraph [0008],

lines 10-14) to one entry of the hardware redirection table (paragraph [0034], lines 6-16)

indicate different receive queues (paragraph [0043], lines 16-28), wherein the program

logic (paragraph [0029], lines 19-24) is further capable of causing the at least one

processor to be operable to indicate that packets associated with conflicting entries are

to be directed to one receive queue (paragraph [0043], lines 16-28). Kaniyar does not disclose a threshold.

43.   However, Rogers discloses the method whether the first set of entries in the table has more members than the second set of entries in the table (column 11, line 67; column lines 1-2; *whereby the number of entries is based on the size of the table*), wherein the number of conflicting entries are determined in response to determining that the first set of entries in the table has more members than the second set of entries in the table (column 11, line 67; column lines 1-2); determining that the number of conflicting entries is less than a threshold (column 7, lines 53-57).

44.   It would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Kaniyar with the teachings of Rogers. The motivation to do so being, to limit the amount of hardware memory displaced by the table.

45.   With respect to claim 19, Kaniyar and Rogers disclose the system of claim 18. Kaniyar further discloses distributing packets in the one receive queue among all processors for processing (paragraph [0043], lines 21-23); and process packets in other receive queues in different processors (paragraph [0043], lines 23-28).

46.   With respect to claim 20, Kaniyar and Rogers disclose the system of claim 18. Kaniyar further discloses the program logic is further capable of causing the at least one processor to be operable to: indicate that all packets are to be directed to a single receive queue paragraph [0043], lines 16-23).

47.   And Rogers discloses the determination that the number of conflicting entries is

not less than the threshold (column 7, lines 53-57).

48.   With respect to claim 22, Kaniyar discloses the article of manufacture of claim 21,

wherein the first redirection table is a software redirection table (paragraph [0031], lines

8-12; paragraph [0007], lines 10-12), wherein the second redirection table is a hardware

redirection table (paragraph [0034], lines 6-16; paragraph [0007], lines 10-12), and

wherein a conflict is caused if at least two entries of the software redirection table

(paragraph [0031], lines 8-12) that are capable of being mapped (paragraph [0008],

lines 10-14) to one entry of the hardware redirection table (paragraph [0034], lines 6-16)

indicate different receive queues (paragraph [0043], lines 16-28), wherein the

instructions are further operable by a machine to determine that packets associated with

conflicting entries are to be directed to one receive queue (paragraph [0043], lines 16-

28). Kaniyar does not disclose a threshold.

49.   However, Rogers discloses the method whether the first set of entries in the table

has more members than the second set of entries in the table (column 11, line 67;

column lines 1-2; *whereby the number of entries is based on the size of the table*),

wherein the number of conflicting entries are determined in response to determining that

the first set of entries in the table has more members than the second set of entries in

the table (column 11, line 67; column lines 1-2); determining that the number of

conflicting entries is less than a threshold (column 7, lines 53-57).

50.   It would have been obvious to one skilled in the art at the time the invention was

made to combine the teachings of Kaniyar with the teachings of Rogers. The motivation

to do so being, to limit the amount of hardware memory displaced by the table.

51.   With respect to claim 23, Kaniyar and Rogers disclose the article of manufacture

of claim 22. Kaniyar further discloses distributing packets in the one receive queue

among all processors for processing (paragraph [0043], lines 21-23); and process

packets in other receive queues in different processors (paragraph [0043], lines 23-28).

52.   With respect to claim 24, Kaniyar and Rogers disclose the article of manufacture

of claim 22. Kaniyar further discloses the instructions are further operable by a machine

to: indicate that all packets are to be directed to a single receive queue paragraph

[0043], lines 16-23)

53.   And Rogers discloses determining that the number of conflicting entries is not

less than the threshold (column 7, lines 53-57).

54.   With respect to claim 25, Kaniyar and Rogers disclose the article of manufacture

of claim 24. Kaniyar further disclose the instructions are further operable by a machine

to: process receive side scaling (paragraph [0007], lines 10-12; paragraph [0008], lines

1-5) in by creation of virtual queues (paragraph [0047], lines 16-18; paragraph [0007],

lines 10-12), wherein a device driver is capable of queuing deferred procedure calls

(paragraph [0004], lines 11-14) associated with the virtual queues to corresponding

processors (paragraph [0009], lines 11-13).

55.   With respect to claim 26, Kaniyar and Rogers disclose the article of manufacture

of claim 22. Rogers further discloses the instructions are further operable by a machine

to: program the hardware redirection table in accordance with the software redirection

table, in response to determining that the first set of entries in the software redirection

table does not have more members than the second set of entries in the hardware

redirection table (column 11, line 67; column lines 1-4).

56.   With respect to claim 28, Kaniyar discloses the article of manufacture of claim 21,

wherein the first redirection table is associated with an operating system (paragraph

[0029], lines 12-16) that supports receive side scaling (paragraph [0022]), wherein the

second redirection table is implemented in the network interface (paragraph [0036],

lines 1-6; Figure 3c). Kaniyar does not disclose a fixed size table.

57.   However, Rogers discloses a table is of a fixed size (column 7, lines 15-17). It

would have been obvious to one skilled in the art at the time the invention was made to

combine the teachings of Kaniyar with the teachings of Rogers. The motivation to do so

being, to limit the amount of hardware memory displaced by the table.

58.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

a.	Gulko et al	Patent. No.	7,174,381
b.	Warner et al	Patent No.	6,615,221
c.	Braun et al	Pub No.	2002/0003780
d.	DeSota et al	Pub No.	2005/0149603
e.	Hariharan et al	Pub No.	2005/0102685
f.	Darnell et al.	Patent No.	6,862,728
g.	DeLong	Patent No.	6,141,344
h.	Keane et al	Pub No.	2003/0158962

59.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLAKE RUBIN whose telephone number is (571)270-3802. The examiner can normally be reached on M-R: 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nabil El-Hady can be reached on (571) 272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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